Acc. Nr: AP0100229 Abstracting Service: CHEMICAL ABST. 5/70 Ref. Code: 4R0062

110699d Isomerization of 1-tert-butylthio-3-butyne under the influence of alkali in an alcohol medium. Prilezhaleva, E. N.; Vasil'ev, G. S.; Petrov, V. N. (Inst. Org. Khim. im. Zelinskogo, Moscow, USSR). *Izv. Akad. Nauk SSSR, Ser. Khim.* 1970, (1), 188–90 (Russ). Reaction of 1-bromo-3-butyne with Me_3CSNa in EtOH 3.5 hr, finally at 40°, gave 67% $Me_3CSCH_2CH_2C{:}CH$, b_{11} 72–3°, n^{20}_D 1.4690, d^{20} 0.8875. This heated at 130° in a sealed tube in alc. NaOH in the presence of 2-$C_{10}H_7NHPh$ as inhibitor gave 75% (in 8 hr) equil. mixt. of isomers (reported earlier) contg. 50% $Me_3CSCH{:}CHCH{:}CH_2$ and 40% $Me_3CSC{:}CCH_2Me$, along with a small amt. allenic isomer. The changes were followed by ir spectra.

G. M. Kosolapoff

REEL/FRAME
19841619

USSR UDC 581.143 + 547.379.52

PRILEZHAYEVA, YE. N., LUKIN, V. V., SNEGOTSKIY, V. I., NOVITSKAYA, N. N., LABA, V. I., SHMONINA, L. I., PETUNOVA, A. A., and LEBEDEVA, G. F., Institute of Organic Chemistry imeni N. D. Zelinskiy, Academy of Sciences USSR, Moscow

"A New Group of Herbicidal Compounds -- Alkylvinyl Sulfones"

Moscow, Doklady Akademii Nauk SSSR, Vol 194, No 3, 1970, pp 727-730

Abstract: A systematic study was made of the relation between herbicidal activity and structure for vinyl sulfones and substances similar to them under hothouse conditions on potted plants. It was found that the display of appreciable herbicidal action in these series is due to the presence of a double bond adjoining the sulfonyl group and possessing strong electrophilicity. The highest herbicidal activity was found in vinyl sulfones with normal primary radicals containing 8-10 atoms. These compounds, to which the authors have given the names Alvisone 8, 9, 10 respectively, showed selectivity of action in hothouse experiments. Some properties of Alvisones 8 and 10, obtained

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USSR

PRILEZHAYEVA, YE. N., et al., Doklady Akademii Nauk SSSR, Vol 194, No 3, 1970, pp 727-730

from chromatographically pure primary n-octyl and n-decyl mercaptans, were compared with the properties of Alvisone-K, obtained from mercaptan concentrate extracted from polysulfide petroleum of the Ishimbay type, as well as Alvisone 8-10 obtained from a mixture of synthetic alcohols C_8-C_{10} (supplied by YU. B. KAGAN and S. M. LOKTEV). Alvisone-K was found to be only slightly inferior to Alvisones 8 and 8-10 in herbicidal activity. Data were obtained on the dosage of "Alvisone" herbicides under field conditions, based on three-year field plot tests conducted at the Pushkin base of the All-Union Institute of Plant Protection (Leningradskaya Oblast), as well as by the Chair of Agriculture of the Soil Biology Faculty of Moscow University (Moskovskaya Oblast).

The results indicate that Alvisone-K possesses a number of properties (e. g., low toxicity for warm-blooded animals, stability under storage) which make it promising for the control of annual di-

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PRILEZHAYEVA, YE. N., et al., Doklady Akademii Nauk SSSR, Vol 194, No 3, 1970, pp 727-730

cotyledonous weeds in carrot plantings. Alvisone can be used as a contact herbicide as a supplement to soil preparations (of the propazine type etc.). The most convenient way of preparing these α,β-unsaturated sulfones is three-stage synthesis from mercaptans, either individual ones or mixtures thereof.

The authors thank T. YE. PIVOVAROVA, V. I. DRONOV, V. KH. SYUNDYUKOVA, T. S. PAPKO for taking part in the synthetic portion of the work, P. V. SABUROVA for taking part in the hothouse tests, A. V. ZAKORDONETS and YE. V. ARZAMASTSEV for determining the toxicity for warm-blooded animals, and Professor R. D. OBOLENTSEV and V. S. BURYY for their interest in the study.

3/3

USSR

PRILUKOV, G. N.

UDC 621.396.666

"An Amplifier With Automatic Gain Control"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 4, Feb 72, Author's Certificate No 326707, Division H, filed 24 Feb 69, published 19 Jan 72, p 209

Translation: This Author's Certificate introduces an amplifier with automatic gain control based on a two-stage circuit using transistors of opposite conductivity type. The amplifier contains two feedback circuits with a resistor connected in one, and a series circuit made up of a transformer, diode and low-frequency filter connected in the other. As a distinguishing feature of the patent, the device is simplified, and nonlinear distortions are reduced by connecting an additional diode in the emitter circuit of the second amplifier stage.

1/1

PRILUTSKAYA, D. Ya.

J/93 87875

2 Jan 73

UDC: 61:002.6

PROBLEMS DEALING WITH LINKAGE OF MEDICAL RECORDS IN ACCORDANCE WITH DATA IN THE FOREIGN PRESS

[Article by V.V. Zanda, N.A. Andreyev, B.A. Pevzner, K.B. Vikens, D.Ya. Prilutskaya, Moscow, Sovetskoye Zdravookhraneniye, Russian, No 11, 1972, submitted 6 May 1972, pp 65-67]

One of the most important aspects of optimizing medical information is to solve the problem (with automated processing) of picking up data on hand or correlating data. The term correlation of medical data (medical record linkage, according to foreign authors) refers to integration of separately recorded (in different sources and at different times) information concerning the physical condition of an individual (or family). The actual concept of medical record linkage has been known since the last century. Selection of available facts was done manually to solve various public health and medical problems, however, in the case of manual data processing, linkage of data which requires quite laborious work to alphabetize large blocks of records was limited to simultaneous, specially organized works. Effective adoption in public health and medicine of modern computer technology opens up basically new opportunities and raises the matter of creating a system of medical record linkage (Dunn; Acheson).

One of the first and foremost tasks in computer processing and linkage of medical data is to work out a reliable and effective method of identification; in other words, each part of the information gathered should include an element that would permit referring it to a specific individual. These are the requirements of identification methods: uniqueness, that is 100 percent selectivity; universality, i.e. the possibility of application to all systems using demographic data; consistency, i.e. no variability for the lifetime of an individual; accessibility; economy (Acheson, 1968; Thierbach; Auger).

In the case of manual processing, complete surnames, names, date and place of birth, and several other tags are compared, and on their basis a conclusion is reached as to whether the entries refer to the record of a single individual. This means of identification is not applicable to

1/2 007 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ETHYLENIC AND ACETYLENIC KETONES AS DIENOPHILES IN CATALYTIC DIENE SYNTHESIS -U-

AUTHOR-(03)-FAVORSKAYA, I.A., AUVINEN, E.M., PRILUTSKAYA, G.V.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 720-3

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ALIPHATIC KETONE, CATALYTIC ORGANIC SYNTHESIS, DIENE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1963 STEP NO--UR/0366/70/006/004/0720/0723

CIRC ACCESSION NO--AP0125552

UNCLASSIFIED

2/2 007 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0125552

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DIELS ALDER REACTIONS OF H SUB2 C:CMECME:CH SUB2 (I) WITH ETCOCH:CHME, ET 1,CYCLOHEXENYL KETONE, ET 1,CYCLOPENTENYL KETONE, ACCH:CHPH, OR PHCOCH:CHME REQUIRES ONLY CATALYTIC AMTS. OF BF SUB3.ET SUB2 O (II). HOWEVER, TO CONDENSE I WITH PRCOC TRIPLE BOND CH OR BZC TRIPLE BOND CME 1 EQUIV. OF II IS REQUIRED. THE LOWER REACTIVITY OF THESE ACETYLENIC KETONES IS DUE TO THEIR LOWER BASICITY (THAN THAT OF ETHYLENIC KETONES) AND THE RELATIVELY WEAK AFFINITY TOWARDS II. FACILITY: LENINGRAD. GOS. UNIV. IM. ZHDANOVA, LENINGRAD, USSR.

UNCLASSIFIED

USSR

UDC: 51

SHEVCHENKO, V. N., PRILUTSKIY, M. Kh.

"Comparison of Two Idealizations in the Problem of Scheduling Theory"

V sb. Vychisl. tekhn. v mashinostroyenii (Computer Technology in Machine Building--collection of works), Minsk, 1970, pp 26-29 (from RZh-Kibernetika, No 1, Jan 72, Abstract No 1V845)

Translation: It is shown that the Bellman-Johnson problem with n jobs and m machines reduces to an analogous problem with n jobs, 2m - 1 machines, and the condition that each operation begins and ends respectively no sooner than the operation preceding it begins and ends. V. Tanayev.

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USSR

UDC 523.164

GAL'PER, A. M., KIRILLOV-UGRYUMOV, V. G., LUCHKOV, B. I., and PRILUTSKIY, O. F.

"Cosmic Gamma-Radiation Research"

Moscow, Uspekhi Fizicheskikh Nauk, Vol 105, No 2, Oct 71, pp 209-250

Abstract: The article is a survey systematizing methods, experimental data, and theoretical work on cosmic gamma radiation. Gamma radiation is formed in the interaction of energetic particles with matter and radiation, the annihilation of matter and antimatter, and in radioactive decay. Methods for studying cosmic gamma radiation include gamma-ray telescopes with Geiger, scintillation, Cerenkov, and semiconductor detectors used as counters; "blind" gamma-ray telescopes (used on some artificial earth satellites); spark gamma-ray telescopes of G. H. FRYE et al (used in many cases on balloons); and the nuclear photoemulsion method. Areas of gamma-astronomy research include measurements of the intensity of diffuse cosmic gamma radiation (isotropic metagalactic and anisotropic galactic components), the search for discrete sources, the study of secondary gamma radiation in the upper layers of the atmosphere. A great deal of work has been devoted to the search for gamma radiation from the Crab Nebula as well as the radio sources Swan A and Virgo A and the sun. Al-

USSR

GAL'PER, A. M., et al., Uspekhi Fizicheskikh Nauk, Vol 105, No 2, Oct 71, pp 209-250

though the results of cosmic gamma-radiation research are rather indefinite and sometimes even contradictory, important conclusions can be drawn on a number of cosmological problems (estimates of the density of metagalactic cosmic rays, the density of antimatter in the universe) and our ideas concerning processes occurring in some cosmic objects (radiogalaxies, quasars, remnants of supernovae, etc.) can be refined. The survey concludes by considering astrophysical applications of the results of cosmic gamma-radiation research, models explaining the origin of different components, and experiments important for the verification of particular models, as well as prospects for the further study of cosmic gamma radiation.

2/2

1/2 031 UNCLASSIFIED PROCESSING DATE--11DEC70
TITLE--CASCADE PROCESSES IN THE METAGALAXY -U-

AUTHOR-(02)-PRILUTSKIY, O.P., ROZENTAL, I.L.

COUNTRY OF INFO--USSR, HUNGARY

SOURCE--INTERNATIONAL CONFERENCE ON COSMIC RAYS, 11TH, BUDAPEST, HUNGARY, AUGUST 25-SEPTEMBER 4, 1969, PROCEEDINGS. VOLUME 1 ORIGIN AND GALACTIC
DATE PUBLISHED--------70

SUBJECT AREAS--ATMOSPHERIC SCIENCES, ASTRONOMY,ASTROPHYSICS

TOPIC TAGS--METAGALAXY, CASCADE, ELECTRON, PHOTON, ELECTROMAGNETIC RADIATION, COSMIC RAY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605061/B07 STEP NO--HU/2506/70/029/000/0051/0054

CIRC ACCESSION NO--AT0144434
UNCLASSIFIED

UNCLASSIFIED PROCESSING DATE--11DEC70

2/2 031

CIRC ACCESSION NO--AT0144434

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE INTERACTION OF HIGH ENERGY ELECTRONS AND PHOTONS WITH ELECTROMAGNETIC RADIATION IN THE METAGALAXY IS CONSIDERED. WE OBTAIN APPROXIMATE EXPRESSIONS FOR THE INTENSITY OF BACKGROUND RADIATION PRODUCED IN THESE PROCESSES. THESE RESULTS MAY BE USED FOR DENSITY ESTIMATIONS OF ELECTROMAGNETIC RADIATION IN THE METAGALAXY AND FOR SPECULATIONS ON THE EVOLUTION OF COSMIC RAY SOURCES.

FACILITY: MOSKOVSKII INZHERNERNO-FIZICHESKII INSTITUT, MOSCOW, USSR.

UNCLASSIFIED

1/2 022 UNCLASSIFIED P PROCESSING DATE--11DEC70
TITLE--COSMIC RAYS AND COSMOLOGY -U-

AUTHOR-(03)-PRILUTSKIY, O.P., ROZENTAL, I.L., SHUKALOV, I.B.

COUNTRY OF INFO--USSR, HUNGARY

SOURCE--INTERNATIONAL CONFERENCE ON COSMIC RAYS, 11TH, BUDAPEST, HUNGARY, AUGUST 25-SEPTEMBER 4, 1969, PROCEEDINGS. VOLUME 1 ORIGIN AND GALACTIC
DATE PUBLISHED--------70

SUBJECT AREAS--ASTRONOMY,ASTROPHYSICS, ATMOSPHERIC SCIENCES

TOPIC TAGS--COSMIC RAY, COSMOLOGY, X RADIATION, COSMIC RADIO SOURCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605060/F09 STEP NO--HU/2506/70/029/000/0565/0568

CIRC ACCESSION NO--AT0144423
UNCLASSIFIED

2/2 022 UNCLASSIFIED PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AT0144423

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RELATIONS BETWEEN VARIOUS COMPONENTS OF COSMIC RAYS, COSMOLOGICAL PARAMETERS AND SOURCES OF RADIATION ARE CONSIDERED. ANALYSIS OF THE PRODUCTION OF RADIO AND X RAY BACKGROUND RADIATION IS THE MAIN PART OF THIS REPORT.

FACILITY: AKADEMIIA NAUK SSSR, INSTITUT KOSMICHESKIKH ISSLEDOVANII, MOSCOW, USSR.

UNCLASSIFIED

USSR

PRILUTSKIY, P. Ye.

UDC 621.384.8.089.6

"Calculation Formula for a Method of Decompensation During Mass-Spectrometric Measurements"

Moscow, Metrologiya, No 7, 1972, pp 55-61

Abstract: A formula which takes the measurement conditions into account was derived for calculating decompensation in mass-spectrometric measurements, and was tested experimentally. Test results yielded good confirmation of its validity. 1 table. 2 figures. 5 references.

1/1

USSR

UDC 621.791.754.546.821

GUREVICH, S. M., Doctor of Technical Sciences, ZAMKOV, V. N., Candidate of Technical Sciences, PRILUTSKIY, V. P., TOPOL'SKIY, V. F., and DYKHNO, S. L., Engineers

"ANT-23A Flux for Argon-Arc Welding of Titanium Alloys"

Kiev, Avtomaticheskaya Svarka, No 6 (243), Jun 73, p 75

Abstract: Argon-arc welding is often used for the manufacture of structures from titanium alloys. Use of the ANT-17A flux permits one-time operation thus ensuring its wide-spread application. However this flux has certain disadvantages in welding thin-sheet metal below 5 mm. Thus the ANT-23A flux has been developed as a highly effective medium to replace the ANT-17A. Using the ANT-23A it is possible to carry out a second welding without first cleansing the surface. Adhesion of the flux and the titanium is much lower and the slag film can be easily removed with a steel brush. The mechanical properties of the joints correspond to those of the base metal. The flux has successfully undergone testing under industrial conditions and is being used in the commercial production of titanium products.

1/1

USSR

UDC: 621.791.856.3:546.821

ZOTOVA, Ye. M., LANGER, N. A., PRILUTSKIY, V. P., and ZAMKOV, V. N.; Institute of Electric Welding imeni Ye. O. Paton, Academy of Sciences Ukrainian SSR

"Corrosion Resistance of Titanium Joints Made by Argon Arc Welding Using AN-T17A Flux"

Kiev, Avtomaticheskaya Svarka, No 11, Nov 70, pp 54-56

Abstract: A study was made of the corrosion resistance of titanium joints produced by argon arc welding using flux. Various methods of removing the slag film were also assessed. Involved were two experimental alloys, one of which was TS5 of the titanium-aluminum-zirconium-tin-vanadium system and the other was OT4. The specimens were welded using AN-T17A flux and titanium powder metal wire. Hydrochloric, sulfuric, and nitric acids served as the corrosive media. Mechanical removal of the slag film was found to insure a corrosion resistance of the joints equal to two-sided plan. . Regardless of the method of slag film removal, welds made with the use of AN-T17A flux appear to have a higher corrosion resistance than those made by conventional argon-arc welding.

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USSR UDC: 666.763.2:543.062

SHAKHNOVICH, I. G., and PRIMACHENKO, V. V., Veliko-Anadol'skiy Fireclay Plant

"Accelerated Method of Assessing the Quality of Kaolin"

Moscow, Ogneupory, No. 9, 70, pp 56-57

Abstract: The Vladimirov-type kaolin basically comprises two minerals: kaolinite and quartz. The contents of other components in kaolin are insignificant and constant. The Veliko-Anadol'skiy Fireclay Plant has introduced a new method of quantitative determination of Al_2O_3 and $Al_2O_3+TiO_2$ on the basis of their losses with calcination. The method involves the use of a nomogram and the ratio of Al_2O_3 or $Al_2O_3+TiO_2$ to their losses in calcination which is used as a correlating factor and is specific of a given sample of kaolin. The procedure has been in use at the plant for the last five years. The differences from the results of

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USSR

SHAKHNOVICH, I. G., and PRIMACHENKO, V. V., Ogneupory, No 9, 70, pp 56-57

chemical analyses were within ±0.5%. The principal merit of this method is speed, which is essential in mass production. The technician will more than double the number of determinations as compared to chemical analyses.

2/2

Acc. Nr: AP0046636 Abstracting Service: CHEMICAL ABST. 4-70 Ref. Code: UR 0131

82486m Effect of fluoride mineralizers on the sintering of alumina. Pirogov, A. A.; Mirak'yan, N. M.; Legnova, E. N.; Primachenko, V. V. (Ukr. Nauch.-Issled. Inst. Ogneupor., Kharkov, USSR). *Ogneupory* 1970, 35(1), 37–40 (Russ). The inhibiting effect of AlF_3 and CaF_2 on the sintering of Al_2O_3 was examd. Com. alumina contg. 99.42–99.49% Al_2O_3 was ground dry so as to obtain a grain size 5–10 μ, bulk d. 0.85 g/cm³, and sp. surface 11,671 cm²/g. After the addn. of 1% AlF_3 or CaF_2 of the grain size <0.2 mm and mixing, cubes (2 cm³) were prepd. and sintered at 1200–1700° for 4 hr. The fluoride mineralizers lowered the compressive strength and shrinkage of the samples. AlF_3 resulted in a stronger inhibiting effect on the sintering of Al_2O_3 at 1200–1550° than CaF_2.

W. J. Skorski

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1/1

REEL/FRAME

19781949

18

1/3 010 UNCLASSIFIED PROCESSING DATE--16OCT70

TITLE--EFFECT OF LIME BINDERS ON THE SINTERING OF ALUMINA MASSES -U-

AUTHOR-(03)-PIROGOV, A.A., MIRAKYAN, M.M., PRIMACHENKO, V.V.

COUNTRY OF INFO--USSR

SOURCE--OGNEUPORY 1970, 35(3), 29-32

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--LIME, ALUMINA, REFRACTORY MORTAR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/0869 STEP NO--UR/0131/70/035/003/0029/0032

CIRC ACCESSION NO--AP0118043

UNCLASSIFIED

2/3 010 UNCLASSIFIED PROCESSING DATE--16OCT70
CIRC ACCESSION NO--AP0118043
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. TECH. AL SUB2 O SUB3, MEDICINAL GYPSUM (HEMIHYDRATE), CHALK, CA(OH)SUB2, AND HIGH ALUMINA CEMENT WERE CHOSEN AS INITIAL MATERIALS FOR THE STUDY OF THE EFFECT OF LIME BINDERS ON THE SINTERING OF AL SUB2 O SUB3 MASSES. THE LIME BINDERS WERE ADDED TO MASSES IN SUCH AMT. TO ACHIEVE 5PERCENT CAO IN THE FIRED SAMPLES. THIS CONTENT CORRESPONDS TO FORMING SIMILAR TO 60PERCENT CA HEXAALUMIANTE AFTER HIGH TEMP. FIRING. SAMPLES (CUBES) WERE FIRED 2 HR IN A FURNACE AT 600, 800, 1000, 1200, 1400, 1600, AND 1700DEGREES. ALL BINDERS USED INHIBIT SINTERING OF AL SUB2 O SUB3. ACCORDING TO THE INHIBITION EFFECT THE BINDERS ARE ARRANGED: HIGH ALUMINA CEMENT, CA(OH)SUB2, CHALK, AND GYPSUM. THE GYPSUM SHOWS THE MAX. INHIBITION EFFECT. A LOW APPARENT D. OF FIRED GYPSUM SAMPLES (1.77 G-CM PRIME3) IS CAUSED BY THE LOWERED D. OF DRIED SAMPLES AND BY THE LARGE WT. LOSS DURING FIRING. THESE SAMPLES SHOW ALSO A MIN. VOL. SHRINKAGE, NAMELY 33.2PERCENT AT 1600DEGREES (SAMPLES OF PURE AL SUB2 O SUB3 49.8PERCENT). IN SAMPLES WITH LIME BINDERS THE FIRMATION OF CA ALUMINATES ACCOMPANYING VOL. ENLARGEMENT SETS IN. THE HIGHER THE DECOMPN. TEMP. OF THE LIME BINDERS, THE GREATER THE INERTIA TO SECONDARY CONTACT SINTERING OF AL SUB2 O SUB3 GRAINS AND HEXAALUMINATE FORMATION AND THE SMALLER THE SHRINKAGE. THE INTENSIVE SHRINKAGE OF MASSES WITH ALL ADDNS. BEINGS ONLY AFTER REACTIONS WHICH ARE ASSOCD. WITH THE VOL. ENLARGEMENT. A LARGER FIRING SHRINKAGE OF THE MASS WITH HIGH ALUMINA CEMENT ADDN. AT 600-900DEGREES IN COMPARISON WITH SHRINKAGES OF OTHER MASSES IS CONDITIONED BY THE DEHYDRATION OF THE CEMENT.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202520020-6"

3/3 010 UNCLASSIFIED PROCESSING DATE--16OCT70

CIRC ACCESSION NO--AP0118043

ABSTRACT/EXTRACT--THE INHIBITION OF SINTERING UP TO 1200DEGREES OF THE LATTER MASS CAN BE EXPLAINED BY THE TRANSITION OF MONOALUMINATE INTO DIALUMINATE. FACILITY: UKR. NAUCH.-ISSLED. INST. OGNEUPOR., KHARKOV,USSR.

UNCLASSIFIED

Acc. Nr: AP0044473 Abstracting Service: CHEMICAL ABST. 4-70 Ref. Code: NE0000

70980e Investigation of germanium surface properties under successive adsorption of gold and silver. Matsas, E. P.; Dyner, L. L.; Primachenko, V. E.; Snitko, O. V. (Inst. Semicond., Kiev, USSR). *Surface Sci.* 1970, 19(1), 109–15 (Eng). Field effect and surface recombination velocity have been studied on real Ge surfaces under adsorption of Au and Ag from aq. solns. Adsorption of Au changes the properties of the Ge surface radically. The effect of Ag deposition was insignificant. The most essential result of the work is that subsequent adsorption of Ag on a Au-covered Ge surface leads to the neutralization of the peculiar properties caused by Au itself. The absence of mutual influence of Ag and Au on the magnitudes of adsorption was established by the radioactive method. RCBD

REEL/FRAME
19771096

1/2 013 UNCLASSIFIED PROCESSING DATE--11DEC70

TITLE--WELDING CONNECTING PARTS TO THIN WALLED TUBES WITH SPIRAL SEAMS -U-

AUTHOR-(04)-ZINOVYEV, A.G., SHKURENKO, A.A., PRIMAK, A.A., POPKO, N.A.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, SVAROCHNOYE PROIZVODSTVO, NO. 5, 1970, PP 41-42

DATE PUBLISHED--------70

SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR

TOPIC TAGS--WELDING MACHINE, PIPE WELDING/(U)MSHP200 WELDING MACHINE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY FICHE NO----FD70/605041/009 STEP NO--UR/0135/70/000/005/0041/0042

CIRC ACCESSION NO--AP0142742
UNCLASSIFIED

2/2 013 UNCLASSIFIED

CIRC ACCESSION NO--AP0142742 PROCESSING DATE--11DEC70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SINCE IT IS IMPOSSIBLE TO CUT THREAD INTO THESE FINE WALLED TUBES, THERE IS NEED FOR FILLING OUT THE TUBE ENDS WITH THICKER WALLED TUBES OR SPECIAL CONNECTING ELEMENTS. ALTHOUGH THE WELDING OF THESE CONNECTING ELEMENTS HAS BEEN DONE ON MACHINES OF THE MSHP-200 TYPE, THE WORK IS COMPLICATED BY EXCESSIVE WEAR AND TEAR OF THE ELECTRODES AS WELL AS THE NECESSITY FOR CLEANING AND DRESSING THE WELDED SURFACES. THIS ARTICLE DESCRIBES A NEW MACHINE FOR DOING THIS WELDING, A PHOTOGRAPH OF THE MACHINE BEING SUPPLIED. A SHORT LIST OF ITS TECHNICAL SPECIFICATIONS IS ALSO PROVIDED. THE OPERATION OF THE MACHINE IS EXPLAINED, AND THE RESULTS OF EXPERIMENTS PERFORMED WITH IT IN THE LABORATORY ARE GIVEN. IT IS ASSERTED THAT TUBES SO WELDED CAN BE SUCCESSFULLY USED IN QUICKLY COLLAPSIBLE IRRIGATION SYSTEMS OPERATING UNDER PRESSURES 6-12 TIMES ATMOSPHERIC. FACILITY: VNITI.

UNCLASSIFIED

USSR UDC 51

PRIMAK, M. YE.

"A General Equilibrium-Optimal Problem in Mathematical Economics"

Tr. 4-y Zimn. shkoly po mat. programmir. i smezh. voprosam, 1971, vyp. 2 (Proceedings of Fourth Winter School on Mathematical Programming and Related Questions, 1971, Vyp. 2), Moscow, 1971, pp 157-173 (from RZh-Matematika, No 5, May 72, Abstract No 5V443 from introduction)

Translation: The article, which in the main represents a detailed exposition of the author's note (RZh-Matematika, 1972, Abstract No 2V619) formulates a general equilibrium-optimal problem and investigates the question of the existence of its solution, including as well D. GALE's nonlinear barter model, WALD's generalized model, and a special production-barter model in the class of equilibrium-optimal problems. This inclusion makes possible, in particular, study of the problem of the existence of favorable equilibrium prices in some production-barter models. An algorithm is presented for solution of a particular case of the general equilibrium-optimal problem, and a procedure for searching for equilibrium in the special production-barter model is also described.

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USSR

UDC: 51

ZUKHOVITSKIY, S. I., POLYAK, R. A., PRIMAK, M. Ye.

"Concave Games. (Examples of Realization)"

Ekonomika i mat. metody (Economics and Mathematical Methods), 1973, 9, No 1, pp 138-147 (from RZh-Kibernetika, No 5, May 73, abstract No 5V608 by A. Mikhaylova)

Translation: The paper presents some examples of realization of methods of finding an equilibrium situation in a many-person game. An algorithm is found for solving the problem of convex programming treated as an antagonistic game with a Lagrange function as the payoff function. As applied to the classical problem of finding the saddle point of a concavoconvex function, an algorithm is concretized which is a generalization of the well known method of the conditional gradient. The authors establish the equivalence between the classical Wald economy model and some concave n-person game, and construct an algorithm for finding equilibrium in a production model. The Pontryagin principle of the maximum which is used gives an economic interpretation for a dynamic production model.

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USSR

UDC: 51

PRIMAK, M. Ye.

"On a General Equilibrium-Optimum Problem of Mathematical Economics"

Tr. 4-y Zimn. shkoly po mat. programmir. i smezhn. voprosam, 1971, vyp. 2 (Works of the Fourth Winter School on Mathematical Programming and Related Problems, 1971, No 2), Moscow, 1971, pp 151-173 (from RZh-Kibernetika, No 5, May 72, Abstract No 5V443)

Translation: In this paper, which is chiefly a detailed exposition of a note by the author (RZh-Mat, 1972, 2V619), a general equilibrium-optimum problem is formulated, the question of existence of the solution is investigated, and also the D. Gayle exchange model, the generalized Wald model and a special production/exchange model are incorporated into the class of equilibrium-optimum problems. In particular, this incorporation enables investigation of the problem of existence of positive equilibrium prices in certain production/exchange models. An algorithm is presented for solving one special case of the general equilibrium-optimum problem, and a procedure is described for finding the equilibrium in the special production/exchange model. Introduction.

1/1

USSR

PRIMAK, N. M., GAYVORONSKIY, V. I., Krasnoyarsk Polytechnical Institute

UDC 538.221

"Effect of the Thin Crystalline Structure of Electrically Deposited Iron Films on the Coercive Force"

Tomsk, Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, No 12, 1971, pp 14-18

Abstract: Experimental data are presented on the study of the effect of the magnitude of blocks of coherent scattering and microstresses arising in the deposition process (internal stresses of type II) on the coercive force H_c of iron films produced electrolytically. Films of iron of thickness 1000 Å deposited on sheet copper at pH = 5 were investigated in the current density range 0.1-4 a/in^2. The 1000 Å iron films were obtained from pure aqueous solutions of iron sulfate containing $FeSO_4 \cdot 7H_2O$ in a concentration of 200 g/l. The electrolyte temperature was 20-22°C. The acidity of the electrolyte was reduced to 0.2 N by a KOH solution. With a further increase in the current density the quality of the depositions as poorer (according to visual observations and the coercive force). An x-ray photographic method and an ionization method were used to study the thin crystalline structure of the deposits.

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USSR

PRIMAK, N. M. et al, Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, No 12, 1971, pp 14-18

The photographic x-ray method made it possible to evaluate qualitatively the nature of the change in the structure of the samples. The study showed that the size of the coherent scattering blocks decreases with an increase in current density. At low current densities of 0.1-0.5 a/in^2, the blocks decrease rapidly, and at high current densities they decrease slightly. The coercive force and microstresses initially decrease up to a current density of 0.5 a/in^2 and then rise. The shape of the coercive force vs. the current density curve is attributed to microstresses. The presence of a minimum in the coercive force at a current density of 0.5 a/in^2 is explained by the minimum value of the microstresses and uniformity in the structure of the deposit. A decrease noted in the saturation magnetization is attributed to adsorption of impurities.

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USSR

UDC 616.92/93(477.61)

PRIMAKOV, S. V., Antratsitovskiy Central Rayon Hospital, Voroshilovgradskaya Oblast

"A Case of Crimean Hemorrhagic Fever in Voroshilovgrad"

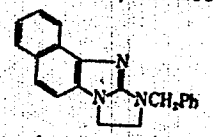
Kiev, Vrachebnoye Delo, No 12, 1971, pp 130-131

Abstract: Crimean hemorrhagic fever is a natural focus viral disease associated with fever, hemorrhagic syndrome, enurologic and visceral disorders, and blood changes. The disease had never been reported in the Voroshilovgrad region (Eastern Ukraine) until 1969, when a 58-year-old man was admitted to the hospital with complaints of severe headaches, weakness, anorexia, insomnia, pain all over the body, nausea, and vomiting. The preliminary diagnosis of typhoid was not confirmed by bacteriological examination and it was not until the patient's 16th day in the hospital (24th day of the disease) that his serum was tested with the antigen of Crimean hemorrhagic fever virus. The reaction of diffusion precipitation in agar was positive; the complement fixation reaction was also positive (1:4). The excerpt from the case history describes the results of physical examinations, blood tests, course of the disease, and therapy used. The patient was discharged in satisfactory condition after 19 days in the hospital.

1/1

Acc. Nr: AP0045143 Abstracting Service: CHEMICAL ABST. 4170 Ref. Code: UR0409

90370j Synthesis of 2,3-dihydro derivatives of imidazo[1,2-a]imidazole systems. Kochergin, P. M.; Povstyanoi, M. V.; Prilmenko, B. A.; Ponomar, V. S. (Vses. Nauch.-Issled. Khim.-Farm. Inst. im. Ordzhonikidze, Moscow, USSR). *Khim. Geterotsikl. Soedin.* 1970, (1), 129 (Russ). Reaction of 2-haloimidazoles with halogenated alcs., olefin oxides, and 1,2-dihaloalkanes in an alk. medium gave the following: 1-(2-hydroxyethyl)-2-bromo-4,5-diphenylimidazole m. 165–6°; 2-chloro analog, m. 138–9°; 2-chloro-3-(2-hydroxyethyl)naphth[1,2-*d*]imidazole m. 186–7°. These heated with NH_3 or RNH_2 gave: 1-(2-hydroxyethyl)-2-phenylamino-4,5-diphenylimidazole, m. 219–20°; 2-benzylamino-3-(2-hydroxyethyl)naphth[1,2-*d*]imidazole, m. 173–5°, which with $SOCl_2$ gave: 1,5,6-triphenyl-2,3-dihydroimidazo[1,2-*a*]imidazole, m. 199–200°; 2,3-dihydroim-



(I)

idazo[1,2-*a*]benzimidazole (picrate, m. 180–2°); 1-benzyl-2,3-dihydroimidazo[3,2-*b*]naphth[1,2-*d*]imidazole, m. 186–7° (I). Similarly were prepd. 1-(2-bromoethyl)-2-bromo-4,5-diphenylimidazole, m. 147–8°; and 2-chloro-3-(2-bromoethyl)naphth-[1,2-*d*]imidazole, m. 108–7°.

G. M. Kosolapoff

REEL/FRAME
19780043

1/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--IMPLANTATION TYPE TRITIUM TARGERS MADE FORM SCANDIUM, YTTRIUM, PRASEODYMIUM, NEODYMIUM, AND ERBIUM -U-

AUTHOR-(04)-STRIZHAK, V.I., PRIMENKO, G.I., KATSAUROV, L.N., PRONMAN, I.M.

COUNTRY OF INFO--USSR

SOURCE--AT. ENERG. 1970, 28(3), 249-51

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ION IMPLANTATION, TRITIUM, SCANDIUM, YTTRIUM, PRASEODYMIUM, NEODYMIUM, ERBIUM, PARTICLE ACCELERATOR TARGET

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1038 STEP NO--UR/0089/70/028/003/0249/0251

CIRC ACCESSION NO--AP0124696

UNCLASSIFIED

2/2 015 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0124696

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. IN THE IMPLANTATION OF T INTO ER, SC, ND. Y, AND PR TARGETS, BY USING AN ACCELERATION VOLTAGE OF 120 KV AND A T CURRENT OF 100 MUA, SATN. OF THE TARGETS WITH T OCCURS AFTER 35-50 MIN OF BOMBARDMENT; THE YIELD OF N FROM THE T(D,N) REACTION ON THE ABOVE TARGERS IS 2.1 TIMES 10 PRIME7, 1.8 TIMES 10 PRIME7, 1.5 TIMES 10 PRIME7, 1.5 TIMES 10 PRIME7, AND 1.8 TIMES 10 PRIME7 N-MUCI, RESP., AS COMPARED WITH 1.8 TIMES 10 PRIME7 N-MUCI FROM A TI TARGET WITH ABSORBED T. HEATING OF IMPLANTATION TYPE RARE EARTH TARGETS REDUCES THE N YIELD FROM THE T(D,N) REACTION, E.G., BY SIMILIAR TO 30PERCENT AFTER HEATING TO 400DEGREES, BUT THE N YIELDS FROM SUCH HEATED TARGETS ARE MUCH HIGHER THAN THE YIELDS FROM HEATED ZR-T TARGETS (WHERE THE YIELD DECREASES BY A FACTOR OF R).

UNCLASSIFIED

1/2 029 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--DESORPTION OF TRITIUM AFTER PENETRATION INTO METALS -U-

AUTHOR--STRIZHAK, V.J., PRIMENKO, G.I.

COUNTRY OF INFO--USSR

SOURCE--UKRAIN. FIZ. ZHUR., JAN. 1970, 15, (1), 169-171

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--DESORPTION, TRITIUM, COPPER, ION BOMBARDMENT, NEWTRON REACTION, THERMAL DIFFUSION, TEMPERATURE DEPENDENCE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1179 STEP NO--UR/0185/70/015/001/0169/0171

CIRC ACCESSION NO--AP0107655

UNCLASSIFIED

2/2 029 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0107655

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DESORPTION OF THE TRITIUM (T) FROM CU AND OTHER METAL TARGETS, INITIALLY IRRADIATED WITH 120-KEV T IONS, WAS STUDIED BY HEATING THE TARGETS AND RECORDING THE NEUTRONS ARISING FROM THE T(D,N) REACTION. THE NEUTRON YIELD FROM TARGETS HEARED TO 500DEGREESC WAS LESS THAN HALF THAT OBTAINED FROM TARGETS AT 500EGREESC, INDICATING A SHARP FALL IN T CONTENT. THIS FALL IS ATTRIBUTED TO A RISE IN THE RATE OF DIFFUSION TO THE SURFACE WITH SUBSEQUENT EVAPORATION INTO SPACE.

UNCLASSIFIED

Lubricants and Lubrication

USSR

UDC 621.777.2:621.892

KARPENKO, I. V., OGNETOVA, ZH. N., and PRIMISLER, V. B.

"Action of Molybdenum Disulfide-Base Lubricants During Hydrostatic Extrusion"

Moscow, Kuznechno-Shtampovochnoye Proizvodstvo, No 10, Oct 73, pp 12-15

Abstract: Investigation of MoS_2-base lubricants was conducted for the hydrostatic extrusion of steels U8, ShKh15, R6M3, and R18, and titanium alloy VT8. Data are presented in this article for steel ShKh15 since the mechanism of the action of solid MoS_2-base lubricants was identical for all the materials studied. Extrusion was done at room temperature using a MoS_2-base, thermoreactive film-forming substance -- phenolformaldehyde resin, and a MoS_2-base thermoplastic substance -- polyvinyl acetate resin. For comparison, lubricant VNIINP-232, consisting of MoS_2 and mineral oil, was also studied. The working fluid used was "Industrial'noye-12" oil. Studies showed that the properties of the film-forming substances have a substantial effect on lubricating action. Extrusion pressure is not lowered using VNIINP-232 but is lowered using the polyvinyl acetate resin. In both cases scratches were found on the extruded surfaces. In the hydrostatic extrusion of hard-to-deform materials with large

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USSR

KARPENKO, I. V., et al., Kuznechno-Shtampovochnoye Proizvodstvo, No 10, Oct 73, pp 12-15

degrees of deformation in the contact zone of the blank material with the die, any liquid or solid lubricant is squeezed out. The degree of deformation has limits depending on type of lubricant. For instance, in the extrusion of a blank, using a solid lubricant with the PVA resin, the lubricant is not squeezed out of the contact zone at reductions of 30 and 50% (at 30% reduction the pressure was reduced by 33% and at 50% -- by 7%). A reduction of 66% was not possible with VNIINP-232 because, evidently, the pressure increased so much that the lubricant was squeezed from the contact zone. The solid lubricant, MoS_2-phenolformaldehyde resin, possesses higher strength properties and is not squeezed out at the contact pressures which form for a 66% degree of reduction. Thus, thermo-reactive resins provide the best lubricating properties for hydrostatic extrusion at high degrees of reduction because they provide a separating film. Two figures, three tables, four bibliographic references.

2/2

USSR

UDC 547.944/945

PRIMUKHAMEDOV, I., ASLANOV, KH. A., and SADYKOV, A. S., Tashkent Order of the Labor Red Banner State University Imeni V. I. Lenin, Tashkent Pharmaceutical Institute

"Alkaloids From the Roots of Saphora Griffithii"

Tashkent, Khimiya Prirodnykh Soyedineniy, No 3, 1972, pp 398-399

Abstract: After extraction with benzene and chromatography on alumina column, roots of Sophora Graffithii yielded citizine, N-methylcitizine, and matrine. All products were identified by comparative IR spectroscopy.

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Acc. Nr. AP0055698 Abstracting Service: CHEMICAL ABST. 6-70 Ref. Code UR0460

112164z **Copolymerization of oligo esters of 1,3-diene-phosphonic acids with unsaturated alkyd resins.** Zagudaeva, T. A.; Printseva, Z. V.; Mashlyakovskii, L. N.; Okhrimenko, I. S. (Leningrad. Tekhnol. Inst. im. Lensoveta, Leningrad, USSR). *Vysokomol. Soedin., Ser. B* 1970, 12(1), 50–2 (Russ). Resin 135 (I) (glycerol phthalate modified with dehydrated castor oil) was copolymd. with a diethylene glycol oligoester (II) of 2-methyl-1,3-butadiene-1-phosphonic acid in the presence of cumene hydroperoxide at 120°. Addn. of 0.5% 1,4-$C_6H_4(OH)_2$ (III) reduced the crosslinking rate. The copolymn. rate of I with II was inversely proportional to II concn., presumably due to the high reactivity of II, which overshadowed the effect of III. The copolymn. gave flame resistant, flexible, crosslinked polymers and films.
CKJR

Y1

CB 7

REEL/FRAME
19841007

USSR

UDC 615.355.099

PRIPUTINA, L. S., OBBARIUS, I. D., BOTSMAN, N. YE., GNATYUK, V. N., and SVETLAYA, G. V., Laboratory for the Investigation of Food Additives, Kiev Scientific Research Institute of Nutritional Hygiene

"Determination of the Toxicity of Enzymatic Preparations of Microbal Origin Designed for Use in the Food Industry"

Moscow, Voprosy Pitaniya, No 6, Nov/Dec 71, pp 43-48

Abstract: The amylolytic preparation Nigrin SR, made from Asp. niger strain EU-119 and used in the production of juices and nonalcoholic beverages, and a second enzymatic prepatation, made from Asp. oryzae strain 476-I and used in brewing of beer, were tested on white rats and ducklings. The preparations caused a reduction in serum antibodies, an increase in the relative weight of the liver, a decrease in the DNA phosphorus concentration in the liver, changes in liver glycogen content, hyperemia of the spleen, hyperplasia of lymphatic tissues, and degenerative changes in the liver and other organs. The disorders are ascribed to the presence of the fungi's metabolic products and unindentified fluorescent substances in the preparations. It is concluded that the Nigrin SR preparation may be used after purification by the method described.

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USSR

UDC 612.89:616-003.96(571.5)

PRIRODA, V. I.

"State of the Autonomic Nervous System in Submarines During Adaptation to a Cold Climate"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 6, 1971, p 87

Abstract: Autonomic functions in healthy members of a submarine crew 20 to 23 years of age were investigated under standard conditions.

During the submariners' adaptation to a cold climate with variable weather conditions, autonomic tone persistedd in the orgotropic (sympathetic) phase, with a tendency toward normalization of autonomic functions (statistically significant: $p \leqslant 0.01$; $tp > 2.5$). Kerdo's index was +19+0.25 during the first year of service, $-+16 \pm 0.38$ during the second, $+11 \pm 0.4$ during the third, and $-+11 \pm 0.47$ during the fourth. Arterial pressure in the right and left humeral arteries remained at the same level throughout the period of serivce ($p > 0.5$; $tp < 0.1$). It averaged $119 \pm 1.6/63.4 \pm 1.4$ on the right and $119.0 \pm 1.3/65.4 \pm 1.13$ mm Hg on the left.

Skin temperature in the process of acclimatization likewise was the same on the symmetrical parts of the body. Under comfortable microclimatic conditions (in the room where the measurements were taken) it was $30.6 \pm 0.1^{\circ}$

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USSR

PRIRODA, V. I., Voyenno-Meditsinskiy Zhurnal, No 6, 1971, p 87

on the forehead, 30.1±0.13° on the right and left cheek bones, 28.3±0.21° on the right hand, 28±0.23° on the left hand, 29.6±0.12° on the right forearm, 29.4±0.14° on the left forearm, 30.1±0.13° on the right thigh, 30.2±0.12° on the left thigh, 26.1±0.17° on the right foot and 26.2±0.14° on the left foot. The highest skin temperature was recorded on the head, the lowest on the feet.

The quantitative indicators of the state of the peripheral vascular reactions according to the Lendel'-Lavastina test were in complete agreement with the thermometric data and showed no statistically significant differences according to the years of service ($tp < 0.1$; $p > 0.5$). The white spot persisted for 4.5±0.83 sec the first year, 4.3±0.7 sec the second, 4.25±0.62 sec the third, and 4.1±0.5 sec the fourth.

Investigation of several autonomic functions showed that autonomic tone became normal in the course of adaptation to the cold and that arterial pressure and skin temperature on the corresponding segments of the body remained symmetrical. The activity of the regulatory mechanisms of the vasomotor and thermoregulatory centers remained stable during acclimatization.

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USSR

UDC 681.335.5

PRIS, G. V.

"A Device for Producing a Voltage Proportional to the Square Root of the Sum of the Squares of Three Voltages"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 22, Aug 71, Author's Certificate No 309370, Division G, filed 27 Feb 70, published 9 Jul 71, p 191

Translation: This Author's Certificate introduces a device for producing a voltage proportional to the square root of the sum of the squares of three voltages. The device contains two amplitude modulators, a sinusoidal voltage generator connected to the modulator inputs, a detector, and a filter. As a distinguishing feature of the patent, speed is increased by the additional inclusion of two adders, a phase shifter, a limiter, and a third amplitude modulator. The inputs of the first two modulators are connected to the inputs of the first adder, the output of this adder is connected through the limiter and phase shifter to the input of the third amplitude modulator, and the output of this modulator is connected, together with the output of the first adder, to the input of the second adder installed ahead of the amplitude detector.
1/1

USSR

UDC: 621.317.4:621.318.134

FOMIN, A. Ye., LIPATOV, P. V., SHCHERBINA, P. L., PRISADA, V. M.

"Multidimensional Statistical Analysis of the Pulse Parameters of Ferrite Cores"

Elektron. tekhnika. Nauchno-tekhn. sb. Ferrit. tekhn. (Electronic Technology. Scientific and Technical Collection. Ferrite Technology), 1970, vyp. 3(25), pp 66-72 (from RZh-Radiotekhnika, No 5, May 71, Abstract No 5A249)

Translation: The authors consider some aspects of multidimensional studies of the pulse parameters of ferrite cores -- amplitude of readout signals, time for magnetic reversal, and the rise time to maximum of the readout signals. A description is given of a measurement complex for these studies which consists of an AI-4096 analyzer, a U-700M automatic device for quality control of ferrite cores, and input matching devices. Measurement data are given as well as the results of computer processing of these data. It is emphasized that such studies are highly important for evaluating the quality of batches of ferrite cores, and for the development of controlled ferrite technology. Resumé.

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USSR UDC 616.981.51-036.21-084.4(478.9

SHLYAKHOV, E. N., and PRISAKAR', V. I., Kishinev Medical Institute

"Anthrax Prophylaxis in Moldavia"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 9, 1973, pp 121-125

Abstract: Prior to Soviet rule Moldavia had one of the highest incidences of anthrax. With the advent of Soviet rule definitive measures were taken to eradicate anthrax as far as possible. They included soil and carcass disinfection and active immunization of cattle, as well as hospitalization and isolation of patients, and treatment with antibiotics and antisera. As a result of such intense and diligent efforts the incidence of anthrax decreased 25-fold from the 1945-1950 period to the 1959-1970 period.

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USSR

UDC 616.981.51-036.22(478.9)"1946-1970"

SHLYAKHOV, E. N., and PRISAKAR', V. I., Kishinev Medical Institute, Kishinev

"Epidemiological Characteristics of Anthrax in the Moldavian SSR Over a Period of 25 Years (1946-1970)"

Moscow, Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 8, Aug 73, pp 15-18

Abstract: As a result of planned veterinary, sanitary, and medical measures that were taken in 1946-1970, the incidence of anthrax among humans and animals decreased in the Moldavian SSR. The incidence among humans per 100,000 of the population was 5.4-20.7, 1.6-4.5, and 0.18-0.39 in 1946-50, 1951-58, and 1959-70, respectively. The frequency of the occurrence of the disease among humans corresponded to the intensity of epizootics among farm animals and was at a maximum (71.2% of the total number of infections) in the summer. Human infection was due in 25.2% of cases to contact with diseased animals and in 30% of cases to incorrect handling of the carcasses of animals that had been diseased. The infection was most frequent (65% of cases in 1946-70) among kolkhoz workers, including those having privately owned cattle. It decreased among kolkhoz workers (from 71.5 to 52.5% of total cases) and workers in the leather and fur

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USSR

SHLYAKHOV, E. N., and PRISAKAR', V. I., Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 8, Aug 73, pp 15-18

industries, while increasing among animal breeders and veterinarians. The incidence among humans and animals was highest in the north-moldavian forest-steppe zone with typical, podzolized, and leached chernozem soils and grey forest soils; lower in the central zone of Moldavia with predominant grey and brown forest soils that are more acid than chernozem; and lowest in the southern zone with ordinary, calcareous, dusty, and southern chernozems. The incidence had a tendency to increase in years with a dry and hot summer.

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1/2 025 UNCLASSIFIED PROCESSING DATE--11SEP70

TITLE--CRITERIA OF PLASTICITY AND BREAKING POINT STRENGTH FOR CARBON STEEL UNDER LOW TEMPERATURE CONDITIONS -U-

AUTHOR--PRISARENKO, G.S., LEBEDEV, A.A., LAMASHEVSKIY, V.P.

COUNTRY OF INFO--USSR

SOURCE--KIEV, PROBLEMY PROCHNOSTI, NO. 1, 1970, PP 3-7

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--LOW TEMPERATURE PROPERTY, CARBON STEEL, THIN WALL TUBE, YIELD STRESS, COMPRESSIVE STRESS, SHEAR STRESS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0638 STEP NO--UR/3663/70/000/001/0003/0007

CIRC ACCESSION NO--AT0104170

UNCLASSIFIED

2/2 025 UNCLASSIFIED PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AT0104170

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS TESTED THIN WALLED TUBES OF MEDIUM CARBON STEEL (C EQUALS 0.37PERCENT) UNDER PLANE STRESS ALONG ONE AXIS AND TWO AXES, AT TEMPERATURE FROM PLUS 20 TO MINUS 180DEGREESC. THEY DETERMINED AN ARBITRARY YIELD POINT, TAKEN AS 0.2PERCENT DEFORMATION IN THE DIRECTION OF MOST INTENSIVE DEFORMATION, AND A DESTRUCTIVE TENSION, CONSIDERED AS THE ULTIMATE LOADS IN THE AREA OF TWO AXIS ELONGATION. THE SAMPLES DEVELOPED INSTABILITY WHEN PLASTIC DEFORMATIONS APPEARED UNDER PURE SHEAR AND SINGLE AXIS COMPRESSION, MAKING IT IMPOSSIBLE TO DETERMINE SHEAR OR COMPRESSION STRENGTH FOR THE MATERIAL. THE RESULTS OF THESE TESTS ARE SHOWN IN A FIGURE WHERE THE EXPERIMENTAL YIELD POINTS ARE SHOWN BY OPEN CIRCLES AND THE CORRESPONDING BREAKDOWN POINTS BY DARK CIRCLES. ALSO SHOWN IN THESE DIAGRAMS ARE THE MIESES AND COULOMB MORE CURVES FOR THE ARBITRARY YIELD POINT AND THE ULTIMATE STRENGTH UNDER SINGLE AXIS TENSION.

UNCLASSIFIED

USSR

UDC 539.4.011

PRISARENKO, G. S., LEBEDEV, A. A., LAMASHEVSKIY, V. P., Institute of Reliability Problems of the Academy of Sciences, UkrSSR

"Criteria of Plasticity and Breaking Point Strength for Carbon Steel under Low Temperature Conditions"

Kiev, Problemy Prochnosti, No. 1, 1970, pp. 3-7

Abstract: The authors tested thin walled tubes of medium carbon steel (C = = 0.37%) under plane stress along one axis and two axes, at temperature from +20 to -180°C. They determined an arbitrary yield point, taken as 0.2% deformation in the direction of most intensive deformation, and a destructive tension, considered as the ultimate loads in the area of two-axis elongation. The samples developed instability when plastic deformations appeared under pure shear and single-axis compression, making it impossible to determine shear or compression strength for the material. The results of these tests are shown in a figure where the experimental yield points are shown by open circles and the corresponding breakdown points by dark circles. Also shown in these diagrams are the Mieses and Coulomb-More curves for the arbitrary yield point and the ultimate strength under single-axis tension.

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USSR

UDC 621.43.52

GUS'KOV, V. P., PRISEDSKIY, N. N., SHCHERBATENKO, V. V.

"One Method of Determination of the Transient Characteristics of a Pressure Sensor with a Pipe"

Samoletostr. i Tekhn. Vozd. Flota. Resp. Mezhved. Temat. Nauch.-Tekhn. Sb. [Aircraft Construction and Air Force Technology. Republic Interdepartmental Thematic Scientific and Technical Collection], 1971, No. 25, pp 25-35. (Translated from Referativnyy Zhurnal Aviatsionnye i Raketnye Dvigateli No 1, 1972, Abstract No 1.34.70, from the resume).

Translation: A hydraulic installation for investigation of the transient processes in low-frequency pressure sensors with connecting tubes of various geometries is described. The perturbation signal at the input of the measuring lines is formed by clearing the pressure through an electromagnetic valve. A method is presented for performing experiments. A critical analysis of the attentuation quality diagrams is presented on the basis of experimental curves of the transient processes. The results of tests clarifying the quadratic resistance factor of the connecting lines of the sensors are presented. 7 figs; 2 biblio refs.
1/1

UDC 631.8

USSR

PRISEDSKIY, V. D.

Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'nymi Udobreniyami (Safety Techniques in Working with Poison Chemicals and Chemical Fertilizers), Moscow, "Vysshaya Shkola," 1971, Corrected and Supplemented 3rd Edition, 192 pp

Translation: Annotation: The book presents rules of safety technique in storing, transporting, and using poison chemicals and fertilizers in agriculture. Information is given on the properties and purpose of the basic poison chemicals and chemical fertilizers. Information is given on means of individual protection and first aid measures for chemical poisoning.

The book may be of help to agricultural specialists and workers involved with chemical agents for protecting plants and fertilizers.

The material on respirators and gas masks was written by G. A. Kobrits.

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PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'nymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3rd edition, 192 pp

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USSR

PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'nymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3rd edition, 192 pp

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PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'nymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3 rd edition, 192 pp

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USSR

PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadoknimikatami i Mineral'nymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3rd edition, 192 pp

17. Safety Technique During Aviation Chemical Work 77

18. Safety Measures During Work in a Private Orchard or Garden 79

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20. Methods of Destroying Leftover Poison Chemicals and Ones Which Have Become Unusable 82

21. Means of Individual Protection During Work with Poison Chemicals 84

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23. Means of Extinguishing Fires and Fire Safety Measures 116

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USSR

PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'nymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3rd edition, 192 pp

24. General Information on Chemical Fertilizers and Liming Materials 117

25. Hygenic Requirements for Chemical Fertilizer Storage Areas 132

26. General Rules of Safety Technique for Work with Chemical Fertilizers 133

27. Safety Technique for Work with Solid Chemical Fertilizers and Liming Materials 134

28. Safety Technique During Work with Packed Chemical Fertilizers 135

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USSR

PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'ymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3rd edition, 192 pp

29. Safety Technique for Work with Unpacked Non-dust Chemical Fertilizers and Liming Materials 139

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31. Safety Technique for Work with Waterless (Condensed) and Watery Ammonium (Ammonia Water) 151

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USSR

PRISEDSKIY, V. D., Tekhnika Bezopasnotsti pri Rabote s Yadokhimikatami i Mineral'ymi Udobreniyami, Moscow, "Vysshaya Shkola," 1971, corrected and supplemented 3rd edition, 192 pp

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Transformation and Structure

USSR

UDC: 546.3-19 + 546.56 + 546.681

SKYARENKO, I.YA., PRISELKOV, YU.A., ZIMAKOV, I.YE., MATERN, G., SAPOZHNIKOV, YU.A., TSEPLYAYEVA, A.V., and SPITSYN, V.I., Institute of Physical Chemistry, Moscow Academy of Sciences USSR, and Moscow State University imeni M. V. Lomonosov, Moscow Ministry of Higher and Secondary Specialized Education USSR

"Evaporation of the Copper-Gallium Alloy in the Field of Phase Transformations"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya, Vol 4, Apr 70, pp 757-761

Abstract: Partial vapor pressures of copper and gallium were determined over copper-gallium (15.5 at-%) alloy in the temperature interval 1171-1395°K. Experimental data plotted as log p vs the inverse temperature show that the functions are not linear, but complex curves with many extrema, exceeding considerably any possible experimental error. The partial pressure curve of gallium exhibited such anomalies much more than did copper and they appeared in liquid, heterogeneous, and solid phases. In the fusion process the partial pressure of copper vapor was noticed to drop. Contrary to some reported data, radioactivity did not affect markedly the behavior of copper vapor, except that the rate of the drop in partial pressure of copper vapor was increased. On the basis of differential-thermal analysis, phase conversions were determined to take place at: 1256±3°K, 1196±3°K, 1299±3°K, and 1236±3°K. The authors thank N.G. Savostina for participating in the research.

1/1

UDC: 661.143

USSR

BOZHEVOL'NOV, V. Ye., PRISELKOVA, K. D., SOLOV'YEV, B. N., ZARUBIN, O. V., KARELIN, V. V.

"Preparation of Continuous-Action Brightness Standards"

Sb. Nauch. tr. VNII lyuminoforov i osobo chist. veshchestv (Collected Scientific Works of the All-Union Scientific Research Institute of Phosphors and Extra Pure Substances), 1971, vyp. 6, pp 95-98 (from RZh-Khimiya, No 15, Aug 72, Abstract No 15L187)

Translation: New methods are proposed for making phosphor brightness standards for the green, blue and orange regions of the spectrum in the form of polymer discs and flexible screens. These methods are simpler and more reliable than conventional methods, and are suitable for all grades of phosphors. Standards based on C^{14} are exceptionally stable (25% brightness fall-off in three years), and also are distinguished by high brightness, mechanical strength, and will withstand being kept for several days in a ferrous sulfate dosimetric solution without losing brightness. Standards made with tritium are safe from the dosimetric standpoint and have high mechanical strength and constant brightness yield (drop in brightness only 3-4% in one year).

1/1

USSR

PRISHCHEP, A., Candidate of Medical Sciences, and ZHIDKOV, V., Physician, Central Scientific Research Institute of Sanitary Education

"Science Widens the Horizons: Sterilization of Spacecraft"

Dushanbe, Kommunist Tadzhikistana, 22 Feb 70, p 4

Translation: Just twenty years ago outer space was unreachable, but recently the world saluted people who stepped on the Moon and was in admiration before the brave "Seven" of the Soviet stellar squadron, which performed new and outstanding experiments in orbit. Outer space has been brought closer. Probably everybody would like to know more of the details about the flights into the universe. Why, for example, is the lunar craft disinfected with a liquid, practically the moment after splashdown? Why is a three-week quarantine required for the astronauts? Are such supermeticulous precautions justified? (From a letter)

Such precautions are by no means accidental. In the first place, the spacecraft is capable of bringing terrestrial microorganisms to another planet, which could then be picked up by the analyzer devices

USSR

PRISHCHEP, A., et al., Dushanbe, Kommunist Tadzhikistana, 22 Feb 70, p 4

as planetary beings. Secondly, the existence of life somewhere else in the universe has not yet been ruled out. We have absolutely no idea about the relationships between earth and extraterrestrial forms of life. Who will guarantee that the former will not alter or destroy the latter, or vice versa?

In view of such a danger, the Soviet Union, England and the USA signed a tripartite agreement in which they promised to pursue studies and investigations of outer space, including the moon and other heavenly bodies, in such a manner as to avoid their contamination as well as delerious changes in the earth's environment. One of the protective measures is sterilization of spacecraft. Not disinfection (i.e. destruction of pathogenic microorganisms), but complete sterilization, eradication of all life, not only on the surface of the rocket but also inside the craft, deep in the engines, equipment, etc.

At first glance this is a simple measure! But in space nothing

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USSR

PRISHCHEP, A., et al., Dushanbe, Kommunist Tadshikistana, 22 Feb 70, p 4

is simple, only the initiated know how much scientists had to work on this. First of all, efforts were made to use physical means, alpha- and beta-particles, gamma- and x-rays. It is known that a dose of 10-20 million rads is sufficient to completely destroy viruses, microbes, fungi, and protozoans. But how to protect the crew? Ultraviolet rays are lethal for all earth-bound microorganisms. But bacteria die only if they are exposed to direct UV; any negligible layer of solid substance completely absorbs these rays and protects the invisible organisms from death. It suffices for a microorganism to attach itself to a particle of mineral dust to become invulnerable. Ultraviolet light does not penetrate into different materials, while microorganisms can remain alive in them (in polymers, for example) if they withstood the polymerization temperature.

What if the spacecraft is immersed in caustic chemical solutions: formaldehyde with methanol, beta-propiolactone, or hydrogen peroxide? Alas, liquids sterilize only the surface of objects and do not pene-

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USSR

PRISHCHEP, A., et al., Dushanbe, Kommunist Tadshikistana, 22 Feb 70, p 4

trate into narrow cracks because of the film formed.

A decision was reached: heat sterilization had to be used. Again failure: high temperatures reduce the quality of most parts, while many instruments and units cannot generally withstand temperatures of 140-180° C.

The investigators then thought of gases, since they are capable of killing spores. Ethylene oxide and methyl bromide were found to be particularly effective. True, when mixed with air, ethylene can explode. In order to prevent combustion it was mixed with carbon dioxide and freons. An explosion-proof mixture was also proposed (40% ethylene oxide and 60% methyl bromide), which is 3-5 times more effective than the cryoxide which is used in the USA. In addition, the gases do not damage components, they can readily pass through film and porous materials and within 2-6 hours the craft is sterile. However, there is one flaw to this method: it is impossible to decontaminate the internal structures of some components.
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USSR

PRISHCHEP, A., et al., Dushanbe, Kommunist Tadshikistana, 22 Feb 70, p 4

What to do? It was decided to combine heating with gas treatment. It remained, however, to choose the most suitable conditions and to use reliable thermostable materials in constructing spacecrafts. American scientists recommended treating the object for 53 hours (in three cycles), and heating some units for 96 hours, but in six cycles. This preserves sensitive batteries better, as well as semiconductors, recording devices, and condensers. Later on it was possible to establish that even less heat (up to 105°) for a longer period also guarantees complete sterility.

In developing some forms of spacecraft in the USA, a self-sterilizing coating containing 3-7% formaldehyde was used. Inspection revealed it was highly effective. Assembly of decontaminated parts of the craft is done in special biologically clean areas, where a temperature of 21° C and humidity of 45% are maintained. Special filters completely arrest microorganisms from the outside air. The assemblers work in sterile suits with autonomous life support systems.

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USSR

PRISHCHEP, A., et al., Dushanbe, Kommunist Tadshikistana, 22 Feb 70, p 4

Until now we were dealing with unmanned spacecraft; it is even more difficult to sterilize manned rocket ships. The development of a biologically impermeable space suit, decontamination of it and the products of man's vital activity -- all these await rational solution. For the time being we have to resort to quarantine and certain methods, which are not perfected as yet, and which are called upon to protect earth from extraterrestrial life.

6/6

USSR

UDC 615.281:8:547.775

SARATIKOV, A. S., YAVOROVSKAYA, V. YE., PRISHCHEP, T. P., BLAGERMAN, S. K., KISELEVA, V. N., IL'INSKIY, N. N., and GICHEVA, T. A., Chair of Pharmacology, Tomsk Medical Institute, Tomsk, and Chair of Microbiology, Novosibirsk Medical Institute, Novosibirsk

"The Antivirus Effect of Some Pyrazolone Derivatives in a Cell Culture in Vitro"

Moscow, Farmakologiya i Toksikologiya, Vol 36, No 1, Jan/Feb 73, pp 67-73

Abstract: In experiments carried out with human fibroblast cell cultures, butadion, stearic acid antipyrylamide, and p-aminobenzoic acid N-methyl-N-antipyrylamide had an antivirus effect on the Coxsackie A13 virus with which the cell culture was infected. This effect was due to the formation by the culture cells of an inhibitor which was not identical with interferon, because it was inactivated at pH 2.2. The pyrazolone derivatives studied stimulated the functional activity of the culture cells and did not damage their nuclear structures. These derivatives had no bactericidal effect on hemolytic streptococci. However, the culture liquid containing the inhibitor had a bacteriostatic effect on these streptococci. Hemolytic streptococci are often present together with Coxsackie virus A 13 in patients with rheumatic fever, particularly in the acute stage of this disease.

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1/2 022 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--MECHANISM OF ANTIPHLOGISTIC PROPERTIES COMMON TO SOME C SUB4 SUBSTITUTED ACYL AMINOPYRAZOLONES -U-

AUTHOR-(05)-PRISHCHEP, T.P., LAVRENTIYEVA, L.N., LOPUKHOVA, V.V., CHERNOVA, N.A., CHERDYNTSEV, S.G.

COUNTRY OF INFO--USSR

SOURCE--FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(1), 78-81

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--ANTIINFLAMMATORY DRUG, AMINE DERIVATIVE, ORGANIC AZOLE COMPOUND, LESION, ALKALOID, SKIN PHYSIOLOGY, ABSORPTION, THYROID GLAND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0090 STEP NO--UR/0390/70/033/001/0078/0081

CIRC ACCESSION NO--AP0119086

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002202520020-6"

2/2 022 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119086

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STEARIC ACID ANTIPYRILAMIDE AND 3,5,DINITROBENZOIC ACID ANTIPYRILAMIDE INCREASED THE RATE OF RESORPTION OF STRYCHNINE NITRATE INTRODUCED TO MICE ON THE SURFACE OF A 24 HR TURPENTINE ABSCESS. BUTADIONE N,METHYL,N,ANTIPYRILAMIDE AND P,AMINOBENZOIC ACID N,METHYL,N,ANTIPYRILAMIDE INHIBITED WHILE STEARIC ACID ANTIPYRILAMIDE INCREASED FUNCTIONING OF THE THYROID GLAND. THE ANTIPHLOGISTIC EFFECT OF THE AMINOPYRAZOLONE ACYL DERIVS. SEEMS TO REQUIRE A NORMAL FUNCTIONING OF THE THYROID GLAND. FACILITY: TOMSK. MED. INST., TOMSK, USSR.

UNCLASSIFIED

1/2 016 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--OXIDATION OF OLIGOESTER ACRYLATES DURING FILM FORMATION -U-

AUTHOR-(02)-MOGILEVICH, M.M., PRISHCHEPCHIK, N.A.

COUNTRY OF INFO--USSR

SOURCE--LAKOKRASOCH. MATER. IKH PRIMEN. 1970, (1), 44-7

DATE PUBLISHED-------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--OLIGOMER, POLYESTER RESIN, ACRYLATE, ETHYLENE GLYCOL, ADIPATE, PENTAERYTHRITOL, OXIDATION, POLYMERIZATION RATE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/0427 STEP NO--UR/0303/70/000/001/0044/0047

CIRC ACCESSION NO--AP0119363
UNCLASSIFIED

2/2 016 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119363

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. CHANGES IN THE CONTENT OF OO, OH, AND CO SUB2 H GROUPS IN THE FOLLOWING OLIGOESTERS WERE STUDIED: BIS(ETHYLENE GLYCOL) ADIPATE DIMETHACRYLATE, BIS(TRIMETHYLOLETHANE) ADIPATE TETRAMETHACRYLATE, OR BIS(PENTAERITHRITOL) ADIPATE HEXAMETHACRYLATE. THE CHANGES ARE SHOWN IN GRAPHS IN WHICH THE FORMATION (OR DECOMPN.) RATES OF THESE GROUPS IN THE 20-100DEGREES RANGE ARE PLOTTED VS. TIME. THE DIFFERENCES OF THESE OLIGOMERS ARE DUE BOTH TO THE RATE OF O PERMEATION THROUGH THEM AND ALSO TO DIFFERENT POLYMN. RATES.

USSR

UDC 621.375.024

PRISHCHEPOV, G. F., PRISHCHEPOVA, T. M., Taganrog Radio Engineering Institute

"A Multistage Amplifier"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 5, Feb 72, Author's Certificate No 327568, Division H, filed 10 Sep 69, published 26 Jan 72, p 161

Translation: This Author's Certificate introduces a multistage amplifier based on transistors of opposite conductivity type with complementary symmetry. The load of each odd-numbered stage is connected to the positive terminal of the power supply, while the load of each even-numbered stage is connected to the negative terminal. As a distinguishing feature of the patent, the stability of the amplifier is improved by connecting the base of one of the transistors in each stage after the first to the load of the preceding stage, while the bases of all other transistors are connected together to form the common controlling electrode of the stages. This controlling electrode is connected to the power supply through a single feedback element which is common to all stages.

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USSR

UDC 621.375.024

PRISHCHEPOV, G. F., PRISHCHEPOVA, T. M., Taganrog Radio Engineering Institute

"A Multistage Amplifier"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 5, Feb 72, Author's Certificate No 327568, Division H, filed 10 Sep 69, published 26 Jan 72, p 161

Translation: This Author's Certificate introduces a multistage amplifier based on transistors of opposite conductivity type with complementary symmetry. The load of each odd-numbered stage is connected to the positive terminal of the power supply, while the load of each even-numbered stage is connected to the negative terminal. As a distinguishing feature of the patent, the stability of the amplifier is improved by connecting the base of one of the transistors in each stage after the first to the load of the preceding stage, while the bases of all other transistors are connected together to form the common controlling electrode of the stages. This controlling electrode is connected to the power supply through a single feedback element which is common to all stages.

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USSR

UDC 519.14

PRISHCHEPOVA, T. M.

"The Characteristic Curve and Its Use in Electronic Circuit Analysis"

Moscow, Radiotekhnika, Vol 25, No 9, 1970, pp 22-26

Abstract: This article considers a special characteristic curve analogous to a matrix determinant and which assumes the presence of all the cause and effect relationships of circuit quantities. The curve permits computation of the various circuit parameters without recourse to plotting curves for each parameter individually, thus enormously simplifying the analysis of complex electronic circuits. The author develops a rule for obtaining and transforming the characteristic curve, and uses it in the design of a transistor stage by way of an example. She asserts that transformation of the characteristic curve is simple and can be done mentally with a little practice.

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PRISHEDKO, N.A.
UR 0482

AA0044801

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

243904 MEASURING GAS HUMIDITY in a vacuum is achieved by having the working chamber in the form of three coaxial cylinders. The measuring device contains a supporting base 1, a coulonometric humidity recorder 2, an internal stationary cylinder 3, middle moving cylinder 4 and external stationary housing 5. Cylinder 4 and toothed wheel 6 are in one piece. The coulonometric recorder 2 is fixed by nut 7 with rubber washer 8. The cylinder is driven by an electric motor 9 via gear wheel 10. The humidity is measured as follows. Steam and air mixture of the tested gas fills the volume of the cell 13 of the moving cylinder 4 by passing through slot 14 of the stationary cylinder 5. After starting the motor 9, the rotating cylinder 4 cuts off a dose of the gas mixture moves to the slot 12 of the cylinder 3 and is connected with the volume of the coulonometric recorder 2.

25.11.66 as 1115503/18-10.V.A.BOSKOBOINIKOV et al. (26.9.69) Bul 17/14.5.69. Class 42L. Int.Cl.G 01b.

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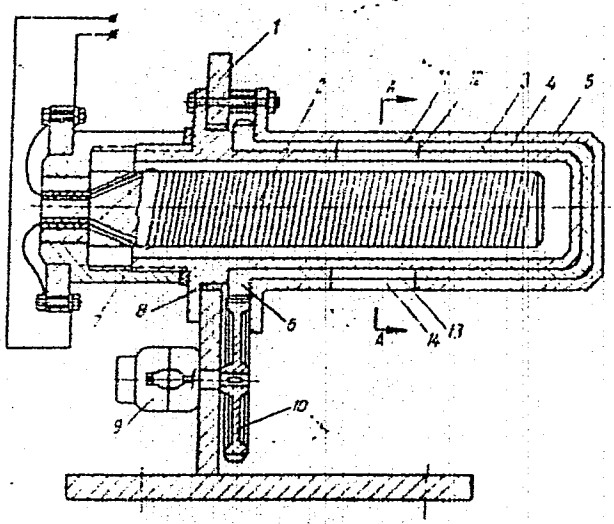

AUTHORS: Voskoboynikov, V. A.; Kaukhcheshvili, E. I.; Prished'ko, N. A.

2/2

19771634

USSR

UDC 535.36

IVANOV, A. P., PRISHIVALKO, A. P., and NAUMENKO, YE. K.

"Scattering of Light by a Layer with a Different Degree of Dispersion"

Leningrad, Optika i Spektroskopiya, Vol 35, No 5, Nov 73, pp 902 - 905

Abstract: The passage of light through a suspension of particles in a medium is determined by the number, size, and nature of the particles. The degree of dispersion of the light-scattering material is characterized by a parameter $\rho = 2\pi a/\lambda$, where a is the radius of the particle and λ is the wavelength of light. Coefficients of reflection and transmission for plane-parallel layers can be calculated from this relationship, using the dual flow approximation of transmission theory. It is found that reflection is maximum and transmission minimum when ρ is in the range of 1 to 5. Within this range, the extremal points are reached at lower values for higher thicknesses.

This calculation is based on adding the radiation flows, since it has been shown that interference effects do not appear in a majority of cases; polarization effects

1/2

are ignored. Mie formulas were the basis for computer calculations to determine the coefficients of absorption and scattering, the probability of photon survival, and the scattering index of an elementary volume as a function of ρ.

The maximum reflection does not coincide with the minimum transmission but is shifted somewhat in the direction of larger particles. Since the curves do not have sharp extrema, this is not very significant in solving many practical problems.

USSR

UDC: 621.373:530.145.6

DUBOVETS, V. G. and PRISHIVALKO, A. P.

"Radiation Polarization and Losses in Triangular and Square Annular Lasers With Two Discharge Tubes"

Elektron. tekhnika. Nauchno-tekhn. sb. Gazorazryadn. pribory (Electronic Engineering, Scientific-Technical Collection, Gas Discharge Devices) 1970, No. 3(19), pp 16-24 (from RZh-Radiotekhnika No. 3, March 71, Abstract No. 3D229)

Translation: An examination is made of the dependence of the radiation polarization azimuth γ_0 and the loss factor K_{los} of triangular and square annular lasers on the tube angle of rotation with respect to the longitudinal axis. Analytical expressions are obtained for the intensity of the output radiation and the losses as functions of the system parameters. K_{los} and γ_0 are computed and graphed for various resonator configurations and discharge tube placements. Resume

1/1

UDC 535.36

USSR

NAUMENKO, Ye. K., IVANOV, A. P., and PRISHIVALKO, A. P.

"Limits of Applicability of Small Particle Approximations in Calculations of Light Attenuation and Scattering Coefficients"

Minsk, Zhurnal Prikladnoy Spektroskopii, (Journal of Applied Spectroscopy), (Journal of Applied Spectroscopy), Vol. 13, No. 5, Nov. 1970, p 898-903.

Abstract: Comparisons are made of the errors resulting from the use of exact and approximation equations for light attenuation and scattering problems and the conditions under which the approximation equations yield acceptably accurate answers. An approximation equation for absorption gives attenuation coefficients within an error of 5% for all scattering spheres having a characteristic dimension of $\rho < 0.2$. For larger spheres, the equation applies only to limited regions of diffraction index and absorption index values. When the absorption index is < 0.01, a more exact equation is recommended because the approximation equation yields Rayleigh scattering coefficients with errors exceeding 5%. When the absorption coefficient is between 0.1 and 0.2 and the refraction index is between 1.01 and 1.1, the approximation equation can be used even when $1 < \rho < 3$. An equation is given for calculating the Rayleigh scattering coefficient when $\rho < 0.4$ with an error not exceeding 2 to 5%. Orig. art. has 4 figs. and 2 refs.

1/1

1/2 019 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--DETERMINING OPTICAL CONSTANTS OF SUBSTANCE OF DISPERSIVE PARTICLES
-U-
AUTHOR-(03)-NAUMENKO, YE.K., PRISHIVALKO, A.P., ASTAFYEVA, L.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKLAD. SPEKTROSK. (USSR), VOL. 12, NO. 1, P. 121-5 (JAN. 1970)
DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--REFRACTIVE INDEX, ABSORPTION COEFFICIENT, PARTICLE SCATTER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1998/1800 STEP NO--UR/0368/70/012/001/0121/0125

CIRC ACCESSION NO--AP0122130
UNCLASSIFIED

2/2 019 UNCLASSIFIED PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0122130

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PROPOSES A METHOD OF CALCULATING THE REFRACTIVE INDEX AND THE ABSORPTION COEFFICIENTS OF THE SUBSTANCE OF DISPERSIVE PARTICLES BASED ON MEASURED COEFFICIENTS OF ABOSRPTION AND OF SCATTER OF AN INDIVIDUAL PARTICLE. LIMITS OF APPLICABILITY OF THE METHOD ARE DEFINED, AND PROBLEMS CONCERNING THE ACCURACY OF OBTAINED RESULTS ARE ANALYSED IN DETAIL.

UNCLASSIFIED

1/2 040 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--STUDY OF THE POLARIZATION, FREQUENCY, AND RADIATION LOSSES OF AN ANNULAR LASER WITH AN ANISOTROPIC PLATE -U-

AUTHOR-(02)-DUBOVETS, V.G., PRISHIVALKO, A.P.

COUNTRY OF INFO--USSR

SOURCE--PRISHIVALKO, ZHURNAL PRIKLADNOI SPEKTROSKOPII, VOL. 12, APR. 1970, P. 647-652

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LASER, LIGHT POLARIZATION, FREQUENCY CHARACTERISTIC, ENERGY SCATTERING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1312 STEP NO--UR/0368/70/012/000/0647/0652

CIRC ACCESSION NO--AP0124963

UNCLASSIFIED

2/2 040 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0124963

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DETERMINATION OF THE DEPENDENCE OF THE ENERGY, POLARIZATION, AND FREQUENCY CHARACTERISTICS OF ANNULAR LASERS ON THE PHASE SHIFT RESULTING FROM THE INTRODUCTION OF AN ANISTROPIC PLATE INTO THE SYSTEM, THE ORIENTATION OF THIS PLATE, AND THE ROTATION OF THE DISCHARGE TUBE RELATIVE TO THE LONGITUDINAL AXIS. THE DEPENDENCES OF THE LOSS COEFFICIENT AND THE POLARIZATION AND FREQUENCY CHARACTERISTICS ON THE PHASE DIFFERENCE, AS WELL AS THE ANGLES OF ROTATION OF THE PLATE AND THE TUBE WHEN PASSING IN CLOCKWISE AND COUNTERCLOCKWISE DIRECTIONS AROUND THE SYSTEM, ARE CONSIDERED FOR AN ANNULAR LASER WITH A DISCHARGE TUBE HERMETICALLY SEALED WITH BREWSTER WINDOWS AND AN ANISOTROPIC PLATE POSITIONED PERPENDICULAR TO THE LASER BEAM.

UNCLASSIFIED

UDC 621.396.677.833(088.8)

USSR

PRISHLIN, V. I.

"Antenna"

USSR Author's Certificate No 253874, Filed 19 Dec 66, Published 3 Mar 70 (from RZh-Radiotekhnika, No 9, Sep 70, Abstract No 9B51P)

Translation: This antenna is executed in the form of controllable reflecting shields and radiators mounted on a pier. Part of the reflecting screens located on the propagation path of the signal which arrives at some azimuth form the primary reflector; part of the screens not participating in reception of the indicated signal constitute an auxiliary reflector. There are three illustrations.

1/1

USSR

UDC: 621.396.677.833(088.8)

PRISHLIN, V. I., SKUGAROV, V. I.

"A Spherical Bireflector Antenna"

USSR Author's Certificate No 248011, filed 10 Jan 68, published 7 Jan 70 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7B68 P)

Translation: The proposed antenna consists of steerable radiators such as waveguide cells with commutating diodes which are located on a spherical surface, auxiliary mirrors and exciters located on the inside surface of the sphere. When a wave is incident on the sphere, the steerable radiators pass the wave into the sphere and reflect the energy flux from the inside surface of the sphere. After reflection from the surface of the auxiliary reflector, the energy enters the exciter. In this way the radiation pattern sweeps through all space. One illustration. A. K.

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AA0043303

P

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent,

2/70

242244 AERIAL OF VARIABLE PROFILE containing main reflector (1) oriented for each azimuth to give a cylindrical waveform reflection which is intercepted by cylindrical mirrors (2) and detected by radiators (3) in focal points F_1 and F_2. The radiators are arranged to move together along the focal plane of the aerial and to rotate in relation to the vertical axis.
8.4.67 as 1147595/26-9 V.I. PRISHLIN. (23.9.69) Bul 22/ 4.7.69. Class 21a^3. Int.Cl. H 01q.

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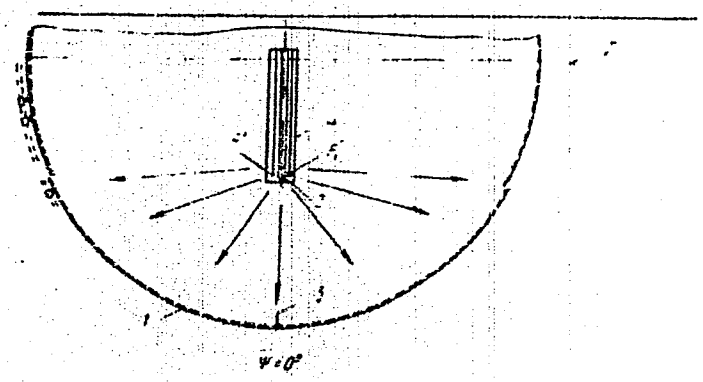

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19761502

1/2 024 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--BOILING TEMPERATURE OF SUPERHEATED LIQUIDS -U-

AUTHOR--PRISNYAKOV, V.F.

COUNTRY OF INFO--USSR

SOURCE--TEPLOFIZ. VYS. TEMP. 1970, 8(2), 451-4

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHYSICAL CHEMISTRY PROPERTY, BOILING, MATHEMATIC EXPRESSION, PRESSURE EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3005/1405 STEP NO--UR/0294/70/008/002/0451/0454

CIRC ACCESSION NO--AP0133357
UNCLASSIFIED

2/2 024 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133357

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. LITERATURE DATA DESCRIBING SUPERHEATED STATE OF K WERE PLOTTED IN THE COORDINATES BAR T MINUS BAR P SUBS, WHERE BAR T IS THE REDUCED BOILING TEMP. (T-T SUBCRIT.) AND BAR P SUBS THE REDUCED SATN. PRESSURE (P SUBSATN.-P SUBCRIT.). IN THE REGION OF BAR P SUBS EQUALS (1-22) TIMES 10 PRIMENEGATIVE3, THE EQUATION T EQUALS A BAR P SUBS PRIMEGAMMA APPLIES, WHERE THE COEFFS. A AND GAMMA ARE 0.637 AND 0.04 FOR A SMOOTH SURFACE AND 0.657 AND 0.09 FOR A ROUGH SURFACE, RESP. FACILITY: DNEPROPETROVSK. GOS. UNIV., DNEPROPETROVSK, USSR.

UNCLASSIFIED

USSR

UDC 532.5:621.455

PRISNYAKOV, V. F.

"Two-Phase Fluid Evacuation From a Cavity"

Kazan', Izvestiya VUZ, Aviatsionnaya Tekhnika, No 4, 1970, pp 72-79

Abstract: A solution of a dynamic problem of evacuating a two-phase fluid from a cavity is presented. A system of input equations is written assuming, that there is no heat transfer to walls, that the outflow occurs at the super-critical pressure drop, that the process is in the thermodynamic equilibrium, that the two-phase fluid is a vapor-liquid emulsion of equally dispersed composition over the entire volume, and that the liquid temperature is sub-critical. The temperature (pressure) dependence of the liquid and vapor physical parameters on the line of saturation is taken into account. The solution in quadratures is presented in the dimensionless parameters. This makes it possible to obtain the final formulas, which simplify the numerical calculation of the transition processes of thermal engines. Thus the formulas and graphs obtained here for water, dimethyl hidrazine, and nitrogen tetro-xide, make it possible to determine the fluid parameters, which in the process of evacuating cavity changes its aggregate state. The method developed here may facilitate the solution of a series of complex problems, arising in the

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PRISNYAKOV, V. F., Izvestiya VUZ, Aviatsionnaya Tekhnika, No 4, 1970, pp 72-79

study of the two-phase fluid flows. 33 formulas, 2 figures, 1 table, and 8 references.

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1/2 019 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--A PSEUDOTUMOROUS FORM OF CHRONIC PNEUMONIA -U-

AUTHOR-(05)-PRISS, B.N., FEOFILOV, G.L., SHUTSKAYA, YE.I., RYBINA, I.A., NEPOMNYASHCHIKH, G.I.

COUNTRY OF INFO--USSR

SOURCE--KLINICHESKAYA MEDITSINA, 1970, VOL 48, NR 3, PP 54-60

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--PNEUMONIA, CANCER, LUNG, SURGERY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1859 STEP NO--UR/0497/70/048/003/0054/0060

CIRC ACCESSION NO--AP0125470

UNCLASSIFIED

2/2 019 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125470

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS ANALYZE OBSERVATIONS OVER 20 PATIENTS WITH A PROTRACTED PNEUMONIA, IN WHOM THE CLINCAL COURSE MORE CORRELATED WITH THE PICTURE OF PERIPHERAL LUNG CANCER. OUT OF 20 PATIENTS 16 UNDERWENT SURGICAL INTERVENTION. THE AUTHORS ASSOCIATE THE SYMPTOMS OF LUNG CANCER WITH PROFOUND ALTERNATIONS IN THE DRAINING BRONCHI (PANBRONCHITIS) IN THE INVOLVED PULMONARY SEGMENTS.

FACILITY: NOVOSIBIRSKOGO MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

USSR

PRISTAVKO, L. P. and PSHENICHNAYA, L. E.

"Systems Analysis of the Semantic Dictionary of the BIT Information Retrieval System"

Lingvist. Probl. Avtomatiz. Inform. Poiska [Linguistic Problems of the Automation of Information Retrieval -- Collection of Works], Kiev, 1972, pp 48-54 (Translated from Referativnyy Zhurnal Kibernetika, No 9, 1973, Abstract No 9V824).

Translation: During the process of operation of the BIT IRS, it becomes necessary to make changes in its dictionary. This article studies the elements of the dictionary which can be changed and describes the sequence of performance of dictionary changes. The dictionary of the BIT IRS is looked upon as a constantly interacting and internally dependent group of parts forming a single system. In conclusion, it is suggested that the method of indexing of the dictionary be changed in order to decrease the volume of work required to alter it.

Ye. Burgina

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UDC 632.936.2

USSR

PRISTAVKO, V. P., NESTERENKO, L. P., and DOVZHENOK, Ukrainian Scientific Research Institute of Plant Protection

"Study of the Activity of the Sexual Attractant of the Codling Moth"

Moscow, Khimiya v Sel'skom Khozyaystve, No 9, 1971, pp 37-40

Abstract: The present work is devoted to isolating the sexual attractant of the codling moth and testing its activity under laboratory and field conditions. The research has been performed since 1968 at the Laboratory of Biophysical Methods of Controlling Harmful Insects of the Ukrainian Scientific Research Institute of Plant Protection. Solvents suitable for extracting the sexual attractant of the female coddling moths and the concentrations to which the males react were investigated.

Methylene chloride, ethyl alcohol and ethyl ether were the most advantageous solvents for extracting the sexual attractant from the glands of female codling moths. The biological material had to be ground before extraction. When testing extracts containing 5-10 female-equivalents of attractant, 5 to 10 minute exposure was sufficient. With a lower concentration the exposure time had to be increased. The minimum attractant concentration

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